

Latent TGF beta 1/TGFB1 Protein, Rat (HEK293, His)

Cat. No.:	HY-P73615
Synonyms:	Transforming growth factor beta-1 proprotein; LAP; TGF-beta-1; TGFB1
Species:	Rat
Source:	HEK293
Accession:	P17246 (L30-S390)
Gene ID:	59086
Molecular Weight:	Approximately 55&38&16 kDa

PROPERTIES

AA Sequence	<pre> L S T C K T I D M E L V K R K R I E A I R G Q I L S K L R L A S P P S Q G E V P P G P L P E A V L A L Y N S T R D R V A G E S A D P E P E P E A D Y Y A K E V T R V L M V D R N N A I Y D K T K D I T H S I Y M F F N T S D I R E A V P E P P L L S R A E L R L Q R F K S T V E Q H V E L Y Q K Y S N N S W R Y L G N R L L T P T D T P E W L S F D V T G V V R Q W L N Q G D G I Q G F R F S A H C S C D S K D N V L H V E I N G I S P K R R G D L G T I H D M N R P F L L L M A T P L E R A Q H L H S S R H R R A L D T N Y C F S S T E K N C C V R Q L Y I D F R K D L G W K W I H E P K G Y H A N F C L G P C P Y I W S L D T Q Y S K V L A L Y N Q H N P G A S A S P C C V P Q A L E P L P I V Y Y V G R K P K V E Q L S N M I V R S C K C S </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years from date of receipt. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	TGF-B1 is known to be secreted in the inactive, latent form. And latent TGF beta 1 (latent TGFB1) is comprised of three distinct components: mature TGFB1 which is a disulphide-bonded dimer, the N-terminal remnant of the TGFB1 precursor
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and a novel type of protein denoted the latent TGFβ1-binding protein (LTBP)^[2]. Although latent TGFβ1 is converted into its biologically active form by various mechanisms, but all mechanisms involve dissociation of TGFβ1 from LAP-B1 in the soluble SLC (small latent complex) and/or the ECM bound LLC (large latent complex). In addition, Proteolytic cleavage is the most prominent cellular mechanism of latent TGFβ1 activation. Latent TGFβ1 associates with the extracellular matrix (ECM) via LTBP. LTBPs are components of the ECM, so that the proteolytic cleavage of LTBP can lead to the release of latent TGFβ1 from the matrix. Besides, the proteolytic cleavage of LLC and liberation of active TGFβ1 is performed by BMP-1, by a variety of matrix metalloproteinases (MMPs)^{[1][3]}.

Caution: Product has not been fully validated for medical applications. For research use only.

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